

- NOTES:
1. MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS
  2. STANDARD PRODUCT USE BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE.
  3. KEY DIMENSIONS EQUAL 0.5"x0.5"x2" (MOTOR SUPPLIED WITH KEY)

UNITS: INCHES

TOSHIBA RESERVES THE RIGHT TO MAKE CHANGES OF TECHNICAL IMPROVEMENT WITHOUT NOTICE. DO NOT USE FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS THE DRAWING IS CERTIFIED.

**320TSC TEXP FRAME  
F1 ASSEMBLY**

MDSLVL805-06

**TOSHIBA**

**TOSHIBA INTERNATIONAL CORPORATION**

TOLERANCES

|       |       |
|-------|-------|
| .X    | .1    |
| .XX   | .03   |
| .XXX  | .005  |
| .XXXX | .0005 |

MAXIMUM  
MOTOR WEIGHT

755 lbs.  
342 kgs.

|    |             |          |          |       |
|----|-------------|----------|----------|-------|
| 0  | FIRST ISSUE | MO       | 04/09/14 | JR    |
| NO | REVISION    | DRAWN BY | DATE     | CHECK |



DRAWN BY: M. O'DOWD  
 CHECK BY: J. RUSSELL  
 APPROVED BY: \_\_\_\_\_

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|             |           |            |  |
|-------------|-----------|------------|--|
| Issued Date | 9/24/2019 | Transmit # |  |
| Issued By   | dschoeck  | Issued Rev |  |

### TYPICAL MOTOR PERFORMANCE DATA

Model: 0502XPEA42B-P

| HP        | kW | Pole       | FL RPM | Frame  | Voltage        | Hz          | Phase    | FL Amps      |
|-----------|----|------------|--------|--------|----------------|-------------|----------|--------------|
| 50        | 37 | 2          | 3540   | 326TSC | 230/460        | 60          | 3        | 116/58       |
| Enclosure | IP | Ins. Class | S.F.   | Duty   | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC      | 56 | F          | 1.15   | CONT   | 93             | B           | G        | 40 C         |

| Load         | HP    | kW   | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|-------|------|---------|----------------|------------------|
| Full Load    | 50    | 37.3 | 58.0    | 93.0           | 88.2             |
| ¾ Load       | 37.50 | 28.0 | 43.9    | 92.2           | 85.7             |
| ½ Load       | 25.00 | 18.6 | 31.6    | 90.2           | 80.5             |
| ¼ Load       | 12.50 | 9.3  | 21.1    | 85.1           | 65.0             |
| No Load      |       |      | 13.7    |                | 7.1              |
| Locked Rotor |       |      | 362     |                | 41.2             |

| Torque            |                      |                 |                    | Rotor wk <sup>2</sup> Inertia (lb-ft <sup>2</sup> ) |
|-------------------|----------------------|-----------------|--------------------|---|
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) |   |
| 74.2              | 250                  | 215             | 260                | 6.39  |

| Safe Stall Time(s) |     | Sound Pressure dB(A) @ 1M | Bearings* |        | Approx. Motor Weight (lbs) |
|--------------------|-----|---------------------------|-----------|--------|----------------------------|
| Cold               | Hot |                           | DE        | NDE    |                            |
| 16.1               | 8.6 | -                         | 6312C3    | 6312C3 |                            |

\*Bearings are the only recommended spare part(s).

**Motor Options:**  
 Product Family:EQP Global Explosion Proof  
 Mounting:C-Face Footed,Shaft:TS Shaft

|             |  |
|-------------|--|
| Customer    |  |
| Customer PO |  |
| Sales Order |  |
| Project #   |  |

Tag:

All characteristics are average expected values.

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|             |           |                  |             |             |               |
|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | pdivecha  | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1119 / 1 |
| Engr. Date  | 4/30/2014 | Doc. Approved By | M. Campbell | Doc. Issued | 9/20/2019     |



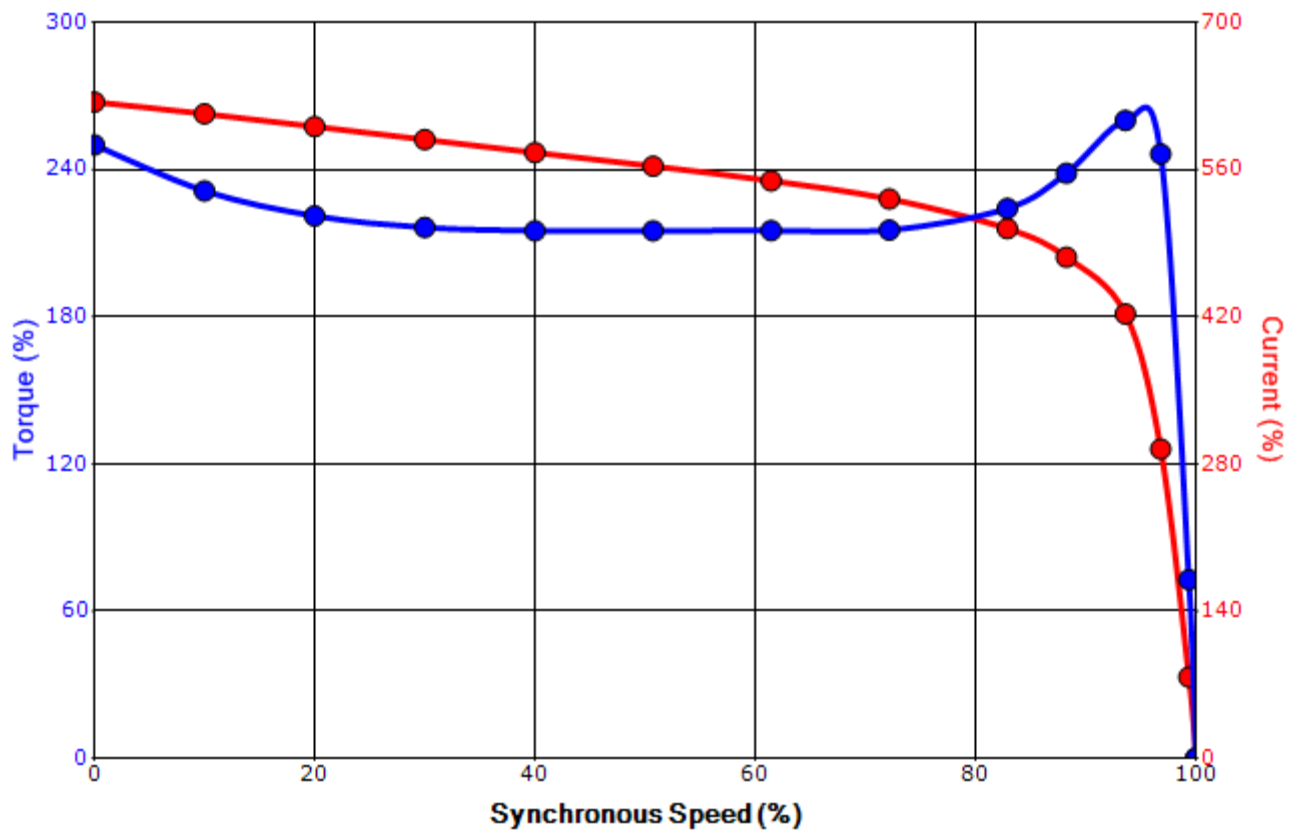
|             |           |            |  |
|-------------|-----------|------------|--|
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### SPEED TORQUE/CURRENT CURVE

Model: 0502XPEA42B-P

|                   |   |                   |                  |        |                |             |                |              |
|-------------------|---|-------------------|------------------|--------|----------------|-------------|----------------|--------------|
| HP                | kW  | Pole              | FL RPM           | Frame  | Voltage        | Hz          | Phase          | FL Amps      |
| 50                | 37  | 2                 | 3540             | 326TSC | 230/460        | 60          | 3              | 116/58       |
| Enclosure         | IP  | Ins. Class        | S.F.             | Duty   | NEMA Nom. Eff. | NEMA Design | kVA Code       | Ambient (°C) |
| TEFC              | 56  | F                 | 1.15             | CONT   | 93             | B           | G              | 40 C         |
| Locked Rotor Amps | Rotor wk <sup>2</sup> Inertia (lb-ft <sup>2</sup> ) | Torque            |                  |        |                | Pull Up (%) | Break Down (%) |              |
|                   |   | Full Load (lb-ft) | Locked Rotor (%) |        |                |             |                |              |
| 362               | 6.39  | 74.2              | 250              |        | 215            | 260         |                |              |

### Design Values



|             |  |  |     |
|-------------|--|--|-----|
| Customer    |  | wk <sup>2</sup> Load Inertia (lb-ft <sup>2</sup> ) | -   |
| Customer PO |  | Load Type  | -   |
| Sales Order |  | Voltage (%)  | 100 |
| Project #   |  | Accel. Time  | -   |

Tag:

All characteristics are average expected values.

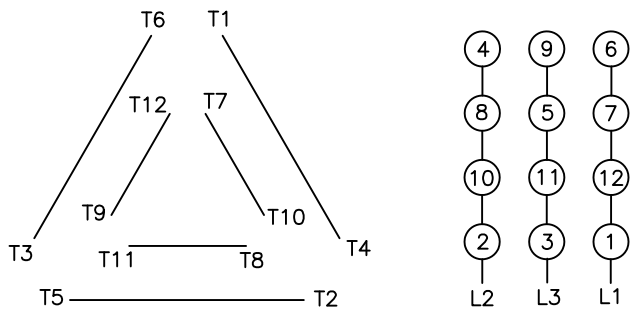
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|             |           |                  |             |             |             |
|-------------|-----------|------------------|-------------|-------------|-------------|
| Engineering | pdivecha  | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1121/1 |
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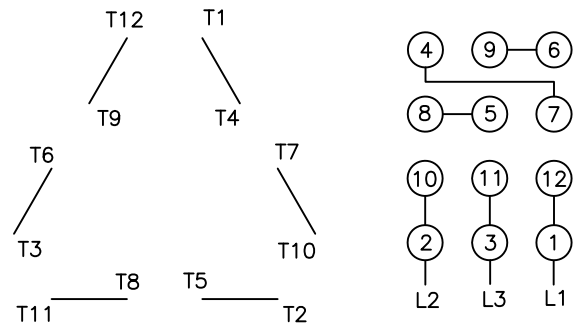
**Motor Connection Diagrams**  
12 Leads

Across-the-Line Starting / Running Connections

Low Voltage Delta



High Voltage Delta



Switch L1 and L2 to reverse rotation

Suitable for Wye-Delta Starting and Limited Part-Winding-Starting.  
Please Contact Toshiba International for specific connections.